Operating Instructions
Bedienungsanleitung
Mode d'emploi
Istruzioni per l'uso

FM/AM DIGITAL SYNTHESIZER TUNER
DIGITALER UKW/MW-SYNTHESIZER-TUNER
SYNTONISEUR SYNTHETISEUR A AFFICHAGE NUMERIQUE FM/AM
SINTONIZZATORE DIGITALE FM/AM SINTETIZZATO

F-99X

English; Page 1
Deutsch; Seite 10
Français; Page 17
Italiano; Pag. 24

(Photograph shows BLACK finished model.)

Thank you for buying this Pioneer product.
Please read through these operating instructions and then you will know how to operate your model properly. After you have finished reading the instructions, put them away in a safe place for future reference.
In accordance with the power and voltage requirements of differing areas, the following model names are used to designate models with differing electrical specifications.

Models	Line voltage
HE, HEZ, NE, NEZ	a.c. 220 volts ~
WE, WB, WP	a.c. 220–240 volts ~
S, S/G, SS	AC 110, 120, 220, 240 volts (Switchable voltage)
D, D/G	AC 120, 220, 240 volts (Switchable voltage)
R, R/G	AC 110–120, 220–240 volts (Switchable voltage)
KU, KC	AC 120 volts
YP, YB, HP, HB	a.c. 240 volts ~

NOTES:

- *The model names are stamped on the packing case.*
- *These operating instructions are prepared on the basis of the HE model, and they can be used for other models. Although the design of the power plug and the power outlet shown may differ from the actual one, the operating procedures are the same.*

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

IMPORTANT NOTICE [For U.S.A. and Canada models]

The serial number for this equipment is located on the rear panel. Please write this serial number on your enclosed warranty card and keep in a secure area. This is for your security.

[For Canadian model]

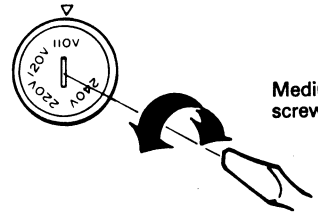
CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

ATTENTION: POUR PREVENIR LES CHOCS ELECTRIQUES NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

LINE VOLTAGE SELECTOR SWITCH

Only multi voltage models are provided with this switch, U.S.A., Canada, U.K., Australia and Europe models are not provided with this switch.
You will find the line voltage selector switch on the rear panel. Before your model is shipped from the factory, the switch is set to the power requirements of the destination; nevertheless, you should check that it is set properly before plugging the power cord into the AC outlet. If the voltage is not properly set, or if you move to an area where the voltage requirements differ, adjust the selector switch as follows. Before adjusting, disconnect the power cord.

1. Provide yourself with a medium size screwdriver.
2. Insert the screwdriver into the groove of the selector switch and turn it so that the power voltage marking of your area points to the white mark.



Medium size screwdriver

ENGLISH
DEUTSCH
FRANÇAIS
ITALIANO

CONTENTS

Connections 3
Front panel facilities 4
Automatic and manual tuning 5
Presetting stations 6
Hints for better reception 7
Troubleshooting 8
Specifications 9

PIONEER®

SAFETY INSTRUCTIONS

READ INSTRUCTIONS – All the safety and operating instructions should be read before the appliance is operated.

RETAIN INSTRUCTIONS – The operating instructions should be retained for future reference.

HEED WARNING – All warnings on the appliance and in the operating instructions should be adhered to.

FOLLOW INSTRUCTIONS – All operating and use instructions should be followed.

WATER AND MOISTURE – The appliance should not be used near water – for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

LOCATION – The appliance should be installed in a stable location.

WALL OR CEILING MOUNTING – The appliance should not be mounted to a wall or ceiling.

VENTILATION – The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

HEAT – The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.

POWER SOURCES – The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

POWER-CORD PROTECTION – Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.

POLARIZATION – If your purchased product is provided with a polarized power plug, please read the following instructions. This product is equipped with a polarized alternating current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.

CLEANING – The appliance should be cleaned only with a polishing cloth or a soft dry cloth. Never clean with furniture wax, benzine, insecticides or other volatile liquids since they may corrode the cabinet.

POWER LINES – An outdoor antenna should be located away from power lines.

NONUSE PERIODS – The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

OBJECT AND LIQUID ENTRY – Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

DAMAGE REQUIRING SERVICE – The appliance should be serviced by Pioneer authorized service center or qualified service personnel when:

- The power-supply cord or the plug has been damaged; or
- Objects have fallen, or liquid has been spilled into the appliance; or
- The appliance has been exposed to rain; or
- The appliance does not appear to operate normally or exhibits a marked change in performance; or
- The appliance has been dropped; or the enclosure damaged.

SERVICING – The user should not attempt to service the appliance beyond that described in the operating instructions. For all other servicing, contact the nearest Pioneer authorized service center.

OUTDOOR ANTENNA GROUNDING – If an outside antenna is connected to the antenna terminal, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges.

In the U.S.A. section 810 of the National Electrical Code, ANSI/NEPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Fig. A.

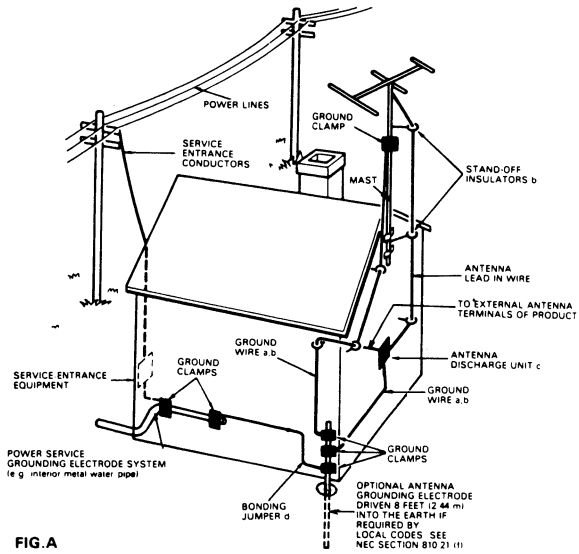

POWER LINES
GROUND CLAMP
SERVICE ENTRANCE CONDUCTORS
MAST
STAND-OFF INSULATORS b
ANTENNA LEAD IN WIRE
TO EXTERNAL ANTENNA TERMINALS OF PRODUCT
GROUND WIRE a,b
GROUND CLAMPS
ANTENNA DISCHARGE UNIT c
SERVICE ENTRANCE EQUIPMENT
GROUND WIRE a,b
GROUND CLAMPS
POWER SERVICE GROUNDING ELECTRODE SYSTEM (e.g. interior metal water pipe)
BONDING JUMPER d
OPTIONAL ANTENNA GROUNDING ELECTRODE DRIVEN 8 FEET (2.44 m) INTO THE EARTH IF REQUIRED BY LOCAL CODES SEE NEC SECTION 810-21 (f)

FIG.A

a) Use No. 10 AWG (5.3 mm²) copper, No. 8 AWG (8.4 mm²) aluminum, No. 17 AWG (1.0 mm²) copper-clad steel, bronze wire, or larger as ground wire.

b) Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4 feet (1.22 meters) to 6 feet (1.83 meters) apart.

c) Mount antenna discharge unit as closely as possible to where lead-in enters house.

d) Use jumper wire not smaller than No.6 AWG (13.3 mm²) copper or equivalent when separate antenna-grounding electrode is used.

IMPORTANT 1

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION:
TO PREVENT THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT 2

If the apparatus is fitted with AC mains power outlet(s), see REAR PANEL FACILITIES for convenient connection of additional Hi-Fi component(s). Make all connections to the AC outlet(s) and the signal terminals first. Connect the plug to the wall socket last, make sure that the power switch is off. Disconnect the wall plug when the equipment is not in (regular) use, e.g. when on vacation.

FOR USE IN THE UNITED KINGDOM

The wires in this mains lead are coloured in accordance with the following code:

Blue:	Neutral
Brown:	Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured marking identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Equipment sold in the U.K. is not supplied with a power plug.

CONNECTIONS

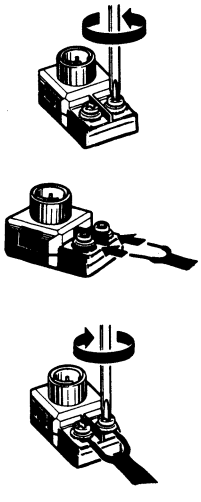
For details on antenna connection, see "HINTS FOR BETTER RECEPTION."

Use for FM reception until a specialpurpose FM antenna is installed.

Accessory FM T-antenna

Outdoor FM antenna

When using the T-type antenna or 300 Ω feeder, connect to the adaptor plug and insert plug in to the 75Ω UNBAL terminal.



Accessory AM Loop Antenna

Coaxial cable

300 Ω Parallel feeder

CONNECTING THE LOOP ANTENNA

1. Push down.
2. Insert cord into the hole.
3. Release.

AM LOOP ANTENNA

Position the accessory AM loop antenna so that it doesn't come into contact with the case of the tuner or other metal objects, and away from such devices as CD players, home computers, television sets, etc.

(Installation Location)

When set on top of a platform, adjust the orientation as shown in Fig. 1 so that optimum reception is achieved.

(Location for attachment)

When attaching the antenna to a post or wall, first locate a place in which optimum reception can be achieved, then attach as shown in Fig. 2, using wood screws.

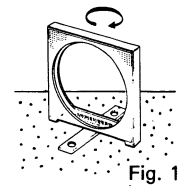
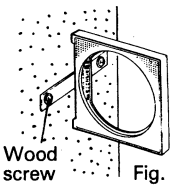


Fig. 1



Wood screw

Fig. 2

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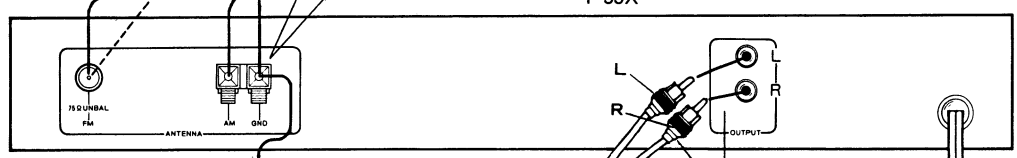
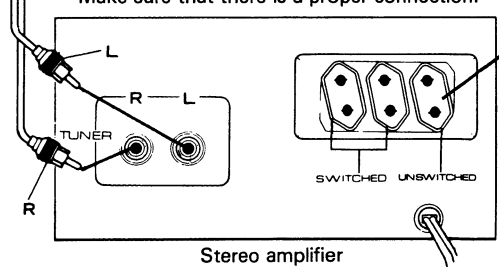


The output teminals of this unit and the end of the pin plug cords are made using tin, as a part of design aimed at improving sound quality.

Pin plug connecting cord

- Connect the white plug to the white terminal (L) and the red plug to the red terminal (R.)
- Make sure that there is a proper connection.



Stereo amplifier

In order to guarantee functioning of memory backup, always plug into an UNSWITCHED outlet or directly into a wall outlet.

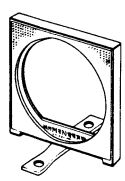
Antenna ground

Although grounding is not necessary for reception it is recommended for protection against damage from lightning if an outdoor FM antenna is used. Grounding is recommended as well to help reduce noise and hum.

NOTE:
Never make the ground connection to a gas pipe as sparks could cause the gas to ignite.

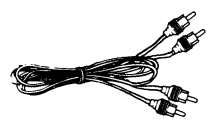
CHECKING OUT THE ACCESSORIES

AM loop antenna

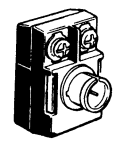


FM T-type antenna

Connection cord with pin plug

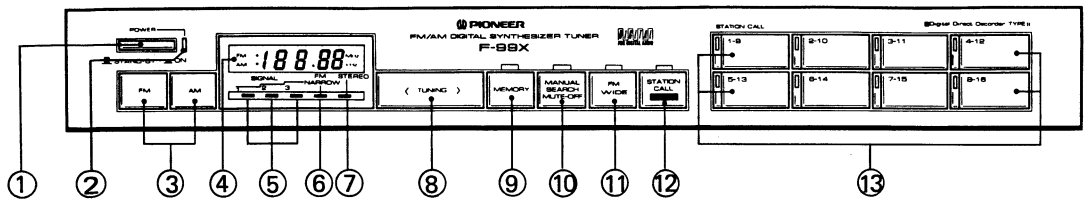


Adaptor plug



ENGLISH

FRONT PANEL FACILITIES



① POWER switch

When this switch is set to the ON position, the POWER indicator lights up, and power is supplied to the tuner's main circuits. The unit's POWER switch is geared to selecting the transformer's secondary and so even at the STAND-BY position, the unit's circuitry will work as long as the power cord is connected to power outlet. Disconnect the power cord from the power outlet when you do not plan to use the unit for a long period of time.

② POWER indicator

③ FUNCTION switches

These are used to select either the FM or AM broadcasting bands.
FM: Push to receive FM band broadcasts.
AM: Push to receive AM band broadcasts.

④ Frequency display

This shows the frequency of the station currently being received in digital form.The FM band is indicated by MHz, and the AM band by kHz.

⑤ SIGNAL indicator

This indicates the strength of the signal received. Adjust antenna orientation, etc. so that a maximum of the indicator elements light up.

⑥ FM NARROW indicator

This light to indicate FM reception in the narrow mode.

⑦ FM STEREO indicator

This lights when a stereo program has been picked up during an FM broadcast.

⑧ TUNING switch

These are used to locate stations. Push the left half of this switch "<" to locate a station broadcasting on a lower frequency and the right half of this switch ">" to locate a station broadcasting on a higher frequency.

⑨ MEMORY switch/indicator

This is used to memorize stations. When the switch is depressed, the MEMORY indicator will light. To memorize the frequency of any station, press the STATION CALL switch while the MEMORY indicator is lighting up.

⑩ MANUAL SEARCH/MUTE-OFF switch/indicator

This switch is used to select either AUTO or MANUAL tuning. For MANUAL tuning, press the switch; the indicator will light. The MUTE function is OFF during MANUAL tuning. If the signal from a station is comparatively weak, or if the station is some distance away, reception may not be possible using AUTO tuning. In such cases, the use of MANUAL tuning is recommended.

MUTING

Muting is incorporated to eliminate FM inter-station noise that can be heard when a station is not tuned in accurately. It may not be possible to tune in the desired station when the muting circuit is activated if the signal is weak or if the station itself is distant. If so, perform tuning without using muting. Muting does not function for AM reception.

⑪ FM WIDE switch/indicator

This switch is used to change the FM reception mode between WIDE and NARROW. When pressed, the indicator lights, and FM reception is set to WIDE.

FM WIDE:	Permits high quality, low distortion FM reception.
FM NARROW:	Use if interference from neighboring stations is present during FM reception.

⑫ STATION MODE switch/indicator

This switch is used to set the STATION CALL switches to Mode 1 (1 — 8) or Mode 2 (9 — 16). Mode 2 (9 — 16) is obtained when the switch is pressed and the indicator is lit.

NOTE:
Changing the position of this switch has no effect on tuner performance itself.

⑬ STATION CALL switches/indicators

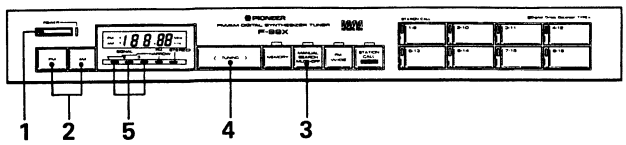
Use for presetting of desired stations and for reception of preset stations. These STATION CALL switches can be used to preset a total of 16 AM and FM stations.

AUTOMATIC AND MANUAL TUNING

- Check that all terminals are properly connected before switching on the unit.
- Before starting to use the unit, turn the FUNCTION switch on the stereo amplifier to TUNER.

AUTO SEARCH

The electronic tuning circuit inside the unit will search for your desired station automatically.



1 Turn on the POWER of the unit and a stereo amplifier.

2 Select your desired broadcasting band using the FUNCTION switches.

3 Check that the MANUAL SEARCH switch is OFF. (The upper indicator is OFF.)

4 Press the TUNING switches "<" or ">" for a higher or lower frequency as desired.

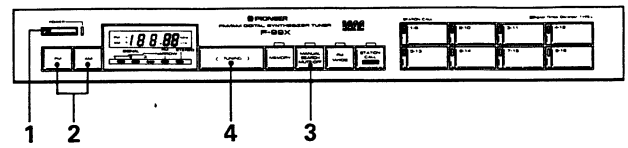
5 The frequency will change rapidly during scanning. The AUTO SEARCH will stop automatically when the desired station is located and the SIGNAL indicator will light up.

NOTE:
When the AUTO SEARCH is in use, reception may not be possible over long distances or when signals are weak. At these times manual tuning is recommended.

Caution with Auto-Search:

- Since this is a highly sensitive mechanism, the frequency search operation may stop even with weak foreign broadcasts, particularly at night. Also, frequency noise in large cities may also cause the search operation to stop.
- When using Auto-Search to preset AM stations, if the frequency search operation stops too frequently, changing the position of the AM loop antenna may be of help in reducing its sensitivity so that only powerful, nearby stations are received. After tuning in the station, be sure to reposition the antenna to its best position for reception.
- For very weak stations, use the manual tuning mode to preset stations.

MANUAL TUNING



1 Turn on the POWER of the unit and a stereo amplifier.

2 Select your desired broadcasting band using the FUNCTION switches.

3 Press the MANUAL SEARCH switch. (The upper indicator light up.)

4 Use the TUNING switches to locate the frequency of your desired station.

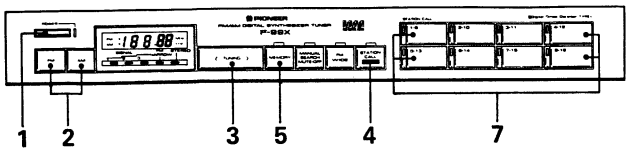
For step-by-step searching, press the TUNING switch once and release it immediately. For continuous rapid scanning keep the TUNING switch pressed. The SIGNAL indicator will light up when the desired station is tuned in best.

NOTE:
The SIGNAL indicator will not function for broadcasts received over long distances or when signals are weak. When an FM broadcast is received in MANUAL TUNING, muting will not operate.

ENGLISH

PRESETTING STATIONS

PRESETTING



1 Turn on the POWER switch of the unit and a stereo amplifier.

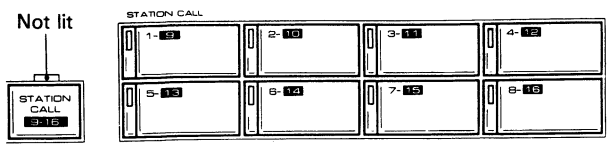
2 Select band of station to be memorized.

3 Tune in desired station.

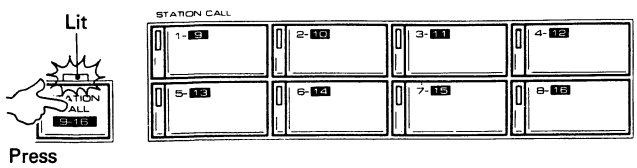
- See the AUTO SEARCH section for information on reception using Auto Search.
- See the MANUAL SEARCH section for information on reception using Manual Search.

4 Press the STATION MODE switch to select Mode 1 or Mode 2.

When presetting using Mode 1 STATION CALL switches



When presetting using Mode 2 STATION CALL switches



5 When station is tuned in, press the MEMORY switch.

- The Memory indicator lights.

6 Press the STATION CALL switch into which you wish to preset the station.

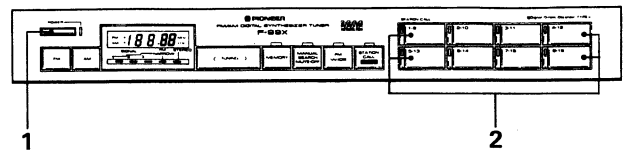
- Perform presetting during the time that the Memory indicator is lit.
- If the Memory indicator goes out, presetting is no longer possible. Press the Memory switch again to perform presetting.

7 Repeat steps 2 to 6 to preset stations into switches 1 through 16.

Up to 16 AM and FM stations may be memorized.
If you accidently preset a station into a STATION CALL switch which contains information, it will be erased and the new station will be entered instead.

NOTE:
STATION CALL switches may be used to (1) Preset FM and AM stations in any order, or (2) preset FM stations in switches 1 through 8 and AM stations into 9 through 16. In the second case, the STATION MODE switch acts as the FUNCTION switch as well.

RECEPTION USING PRESET TUNING



1 Turn on the POWER switch of the unit and a stereo amplifier.

2 Press the STATION CALL switch into which the desired station has been preset. (When necessary, do not neglect to perform Station Mode selection as well.)

Tuning can be performed simply and accurately by following the above procedure.

NOTES:

- *Preset stations will be retained in the MEMORY when the POWER is switched OFF as long as the POWER cord is not disconnected.*
- *It is recommended that you disconnect the POWER cord when the unit is not being used for long periods of time. The electrical circuit controlling the MEMORY function is powered by a BACK-UP CONDENSER so that the unit will retain preset stations for a period of up to 3 days.*
- *If a preset station has been erased, reset it.*

Last station memory

- When the POWER switch is pressed to turn power on, the last station received before the power was previously turned off will be received again.
- When power is ON, if the FUNCTION selector switch is pressed, the last station received before the FUNCTION switch was previously pressed will be received again.

HINTS FOR BETTER RECEPTION

EXTERNAL FM ANTENNA

The main advantage of FM over AM is the quality of the broadcast signal. In oder to benefit fully from the high signal quality of FM broadcasts, it is recommended that a special-purpose FM antenna be installed. In weak signal areas, a multi-element (3 element, 5 element, 7 element) antenna should be used.

CONNECTIONS USING COAXIAL CABLE

As illustrated, prepare the ends of the coaxial cable and attach to the supplied adaptor plug. Take care that the outside webbing of the cable does not contact the inside filament. Then, insert the adaptor plug into the antenna input terminal (75 Ω-UNBAL).

CONNECTIONS USING 300 Ω PARALLEL FEEDER

Prepare the ends of the parallel feeder and attach to the adaptor plug as shown in the illustration on page 3. Keep the length as short as possible and avoid letting it come into contact with metal objects, coiling it, or piling excess length on the floor. Insert the adaptor plug into the antenna input terminal (75 Ω-UNBAL).

EXTERNAL AM ANTENNA

If it is not possible to obtain adequante AM reception even by changing the orientation of the AM loop antenna, a separate indoor antenna, or an outdoor antenna should be installed.

INDOOR AM ANTENNA

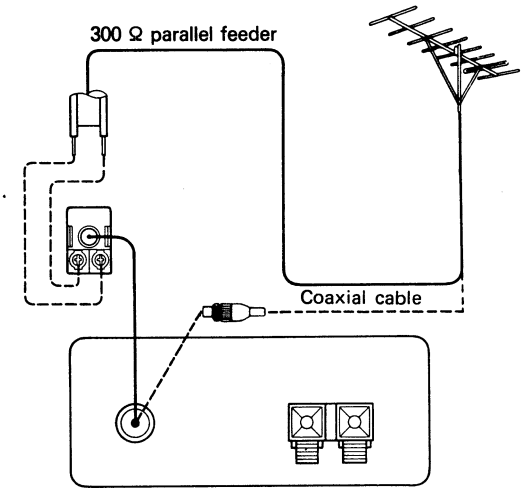
Use a vinyl coated wire (5 — 6 m) and connect one end to the AM antenna terminal and affix the other end to the wall or ceiling, as high as possible.

OUTDOOR AM ANTENNA

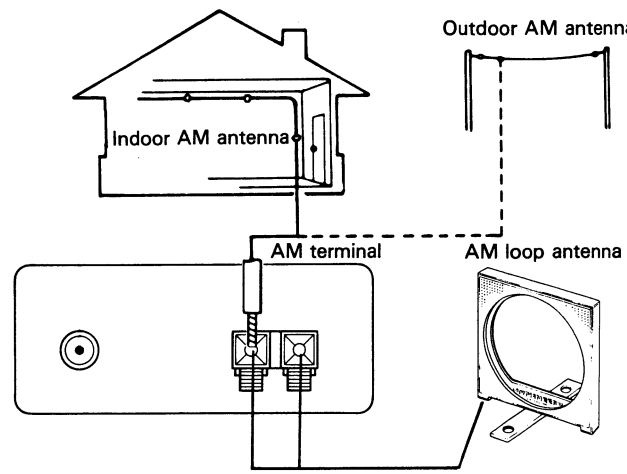
If reception quality is not improved sufficiently even when an indoor antenna is used, a vinyl coated wire should be installed outside and fixed in place.

NOTE:
Do not detach the AM loop antenna when using an indoor or an outdoor AM antenna.

FM outdoor antenna



External AM antenna connections



Orient the loop antenna for optimum reception.

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TROUBLESHOOTING

If you think your unit is malfunctioning, take the time to check out the points below. In many cases, carelessness or incorrect operation is to blame. Alternatively, the problem may lie outside the unit. Make a point of checking the other stereo components being used as well as any other electrical appliances. If the trouble is not remedied even after checking the points below, contact your nearest authorized Pioneer service station.

Symptom	Trouble	Remedy
No power (POWER switch at ON)	• Has the power cord been disconnected?	• Reconnect the power cord.
No sound	• Have any of the output cords been disconnected or incorrectly connected?	• Connect them properly to the TUNER terminals on the amplifier.
	• Has the antenna been disconnected or is the connection loose?	• Connect the antenna properly.
	• Has the power switch been left off for several days? (Station memory has been lost.)	• Reprogram station memory.
Static	• Is the station properly tuned in to the correct frequency?	• Tune in the station correctly.
	• Has the antenna been disconnected or is the connection loose?	• Connect the antenna properly.
Sound distortion	**On the FM band** • Is the cord of the T-antenna still folded up and not extended or is the antenna facing in the wrong direction?	• Extend the two ends of the antenna and/or change the direction of the antenna until best reception is obtained.
	• Are the signals weak and reception poor?	• Substitute an FM outdoor antenna for the FM T-antenna.
	• Static from other appliances (particularly automobiles) or multipath reflection (radio waves beamed off mountains and tall buildings and not received directly.)	• Try varying the height and direction of the antenna or use an FM outdoor antenna substituting a 75-ohm coaxial cable for the standard cable and fixing it as far away as possible from the street.
	On the AM band • Poor positioning of AM loop antenna? • Is accessory AM loop antenna in contact with tuner?	• Change the direction of the antenna until best reception is obtained. • Separate loop antenna as far as possible from tuner.
	• Are the signals weak and reception poor?	• Fix an AM outdoor antenna or ground the antenna.
	• Static from other electrical appliances? (fluorescent lights / motors)	• Switch off other appliances or keep as far away as possible from the tuner when in use.
Stereo broadcasts not received in stereo.	• Are the signals weak, with insufficient input? • Is the frequency tuned in properly?	• Change to a multi-element outdoor FM antenna • Tune in station accurately.

SPECIFICATIONS

FM Tuner Section

Frequency range . . . . . 87.5MHz to 108MHZ)
Usable Sensitivity
NARROW . . . . . 10.8dBf, IHF (0.95μV/75Ω)
50dB Quieting Sensitivity
NARROW . . . . . Mono; 15.3dBf, IHF (1.6 μV75Ω)
Stereo; 35.9dBf, IHF (17 μV/75Ω)
Sensitivity (DIN)
NARROW . . . . . Mono; 0.75 μV/75Ω
Stereo; 20 μV/75Ω
Signal-to-Noise Ratio . . . . . Mono; 94dB (at 80dBf)
Stereo; 87dB (at 80dBf)
Signal-to-Noise Ratio (DIN) . . . . . Mono; 76dB
Stereo; 73dB
Distortion (at 80dBf)
WIDE . . . . . Mono; 0.015% (100Hz)
0.0095% (1kHz)
0.02% (6kHz)
Stereo; 0.02% (100Hz)
0.02% (1kHz)
0.07% (10kHz)
NARROW . . . . . Mono; 0.09% (1kHz)
Stereo; 0.5% (1kHz)
Capture Ratio . . . . . 0.8dB (WIDE)
Alternate Channel Selectivity . . . . . .
NARROW 85dB (400kHz)
Stereo Separation
WIDE 65dB (1kHz)
55dB (20Hz to 10kHz)
Frequency Response . . . . . $^{+0.2}_{-0.8}$ dB (20Hz to 15kHz)
Image Response Ratio 70dB
IF Response Ratio 100dB
AM Suppression Ratio 70dB
Spurious Response Ratio 80dB
Subcarrier Product Ratio 60dB
Muting Threshold 25.2dBf (5 μV/75Ω)
Antenna Input . . . . . 75Ω unbalanced

AM Tuner Section

Frequency range . . . . . 531kHz to 1602kHz
Sensitivity (IHF, Loop antenna) . . . . . 150 μV/m
Selectivity 18dB
Signal-to-Noise Ratio 50dB
Image Response Ratio 40dB
IF Response Ratio 60dB
Antenna . . . . . Loop Antenna

Audio Section

Output (Level/Impedance)
FM (100% MOD) FIXED 650mV/900Ω
AM (30% MOD) FIXED 150mV/900Ω

Miscellaneous

Power Requirements . . . . . a.c. 220Volts ~, 50/60Hz
Power Consumption 20W
Dimensions . . . . . 420(W) x 63.5(H) x 312(D)mm
16-9/16(W) x 2-1/2(H) x 12-5/16 in
Weight (without package) . . . . . 4.1kg(9lb1oz)

Furnished Parts

FM T-type Antenna 1
AM Loop Antenna 1
Connection Cord with Pin Plugs 1
Adaptor Plug 1
Operating Instructions 1

NOTE:
Specifications and design subject to possible modification without notice.

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